FALL/WINTER EDITION 2010

MID SOUTH CHRONICLE

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INSIDE THIS ISSUE:

WINTER IS COMING…WHAT CAN WE EXPECT?

BY CHRIS DUKE, METEOROLOGIST INTERN

Even though the winter season has just started officially, the entire month has certainly felt a lot like winter. Lawn mowers are locked away in sheds, leaves have fallen, and sub-freezing temperatures are much more commonplace. As we head deeper into winter, questions are tossed around like snow balls as to what we can expect this season, especially as we head into a relatively strong La Nina period. To try to make sense of the speculation, let's look at what the Climate Prediction Center (CPC) is expecting for the upcoming winter season.

Once per month, the CPC issues an official three month outlook for both temperature and precipitation. These outlooks indicate the chances of the average temperature or precipitation over a given three month period to be above, below, or near normal. These depictions are based on the present 30 year climatological reference period (1971-2000).

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ICE STORM COMETH!

BY JIM BELLES, METEOROLOGIST-IN-CHARGE

Yes, an Ice Storm will come! Although perhaps not this year, sometime in our future a crippling ice storm will occur. So, it's in our best interest to be prepared!

An ice storm is a potentially crippling weather event that can leave people without power or communications for up to two weeks. The weight of ice that accumulates on trees, power lines and other objects can cause them to snap and fall. That's why after a significant ice accumulation get ready for the loud noises as tree limbs crash to the ground. Don't be in such a hurry to clean up those branches and limbs! Wait until the ice has melted from the tree before venturing out. Ice Storm related deaths can occur due to falling trees, large branches and limbs.

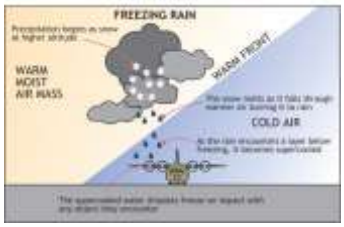
Thankfully, major ice storms are rare. The last significant ice storm to hit our area was in January 2009. That year a devastating ice storm hit the Missouri Bootheel, northeast Arkansas and portions of west Tennessee really hard. Major power and communication disruption occurred and many trees were destroyed.

The reason significant ice accumulation is so rare is that very special conditions need to be in place. Freezing temperatures need to occur on the ground, while precipitation falls through a substantial layer of air that is above freezing. As the rain falls and hits objects on the ground it freezes on contact. Heavy rainfall results in significant ice accumulation.

How do you prepare for an ice storm? Well, your primary concerns are loss of heat, power and communication service, and a shortage of supplies if the storm conditions continue for more than a day. To mitigate those concerns have available: Flashlights and extra batteries, extra food and water, extra medicine, baby items and first aid supplies.

Remember fuel carriers may not reach you for days, so if you use heating fuel make sure you are not close to empty. Also, if power goes out make sure alternate heating sources like fireplaces, wood stoves and space heaters are used properly to prevent fire and make sure they are properly ventilated. Carbon monoxide poisoning can occur if alternate heating sources are not used properly.

Ice storms can be beautiful, but the effects can also be devastating. Preparing ahead can take the bite out of the storms.



DEEPWATER HORIZON SPILL- A WFO MEMPHIS FORECA**STER'S EXPERIENCE**

BY RICH OKULSKI, WARNING COORDINATION METEOROLOGIST

The Deepwater Horizon oil rig exploded in late April and caused the largest offshore oil spill in our nation's history. Federal, state and local emergency responders continue to this day to work on restoration efforts along the Gulf coast. This is one personal story based on the experiences of Rich Okulski, WFO Memphis' Warning Coordination Meteorologist.

Rich is both a current Incident Meteorologist and a former U.S. Army Officer who served as a First Infantry Division platoon leader during the Persian Gulf War. He deployed to the WFO Slidell, Louisiana on July 31 to fill in behind local forecasters deployed to the Incident Command Center (ICC) in Houma, Louisiana. Rich worked four midnight shifts, two evening shifts and spent one day at the ICC in Houma during his deployment.

The Greek philosopher Plato was quoted as saying "Necessity, who is the mother of invention." The WFO Slidell's staff impressed Rich with their ability to invent new products, services and technology driven by the necessity of supporting a Spill of National Significance. They also trained four visiting forecasters on their office's standard operating procedures every two weeks! Rich needed to remember his marine meteorology in order to issue forecasts.

WFO Slidell's emergency response meteorologists shared with Rich how they moved from the local parish emergency operations center to British Petroleum's Situation Room during a four week time period. Decision makers realized timely and accurate weather and water information was vital to their operations and planning.

One story stood out above the rest. Aviators needed average wave heights above 18 inches to release dispersant for proper mixing with surface oil. By late spring, wave heights rarely reached 18 inches due to the lack of surface cold fronts reaching the Gulf of Mexico. The emergency response meteorologists and aviators realized they could spray dispersant ahead of developing thunderstorms. The thunderstorms would temporarily raise wave heights in response to outflow winds. The team figured out a clever way to accomplish the mission!

Natural and "man made" disasters bring out both the best and worst in humanity. Rich is grateful to report that he witnessed some of humanity's best responding to the Deepwater Horizon Spill.

Common Winter Terms:

-Freezing Rain:
Rain that freezes when it hits the ground, creating a coating of ice on roads, walkways, trees, and power lines.

-Sleet:
Rain that turns to ice pellets before reaching the ground. Sleet also causes moisture on roads to freeze and become slippery.

-Winter Storm Watch:
Significant amounts of snow and/or sleet and/or ice may occur.

-Winter Storm Warning:
Significant amounts of snow and/or sleet and/or ice will occur or is (are) imminent.

-Ice Storm Warning:
Ice accumulations of at least 1/4 inch are expected.

-Blizzard Warning:
Sustained winds or frequent gusts to 35 miles per hour or greater and considerable amounts of falling or blowing snow (reducing visibility to less than a quarter mile) are expected to prevail for a period of three hours or longer.

-Winter Weather Advisory:
Snow or a wintry mix that is expected to produce only nuisance accumulations.

-Wind Chill Advisory:
Wind chill values of 0 degrees or colder.

-Wind Chill Warning:
Wind chill values of –18 degrees or colder.

-Frostbite:
Skin that has prolonged exposure to cold temperatures freezes.

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A LETTER TO STORM SPOTTERS

BY JIM BRANDA, GENERAL FORECASTER

Welcome to the second storm spotter look-back in review article. I would like to highlight this past fall season of talks and give you tips for the upcoming cold tornado season time of the year. Again, I would like to thank everyone that signed on to become a new spotter this past fall and for those who continue to be dedicated in serving their communities. Here's the main equation that hits home from the Basic Spotter Talk:

DOPPLER RADAR + SPOTTER REPORTS = SAVES LIVES!

The fall 2010 season was very quiet across the Mid-South, as the summer heat wave continued to bring dry conditions to the area through mid October. The first event was small in scale occurring on October 12, with only one severe storm affecting Northwest Mississippi with 60 mph winds near Senatobia. A second and slightly weaker storm moved into Shelby County Tennessee producing penny to nickel size hail, and a third storm produced dime size hail and an estimated 50 mph wind gust south of Caruthersville, Missouri. I intercepted that storm just as I passed the I-155 Mississippi River bridge on my way for an advanced talk at the Caruthersville, Missouri library, which by the way is an awesome facility. Even though these hail reports did not meet the severe criteria of one inch, it really helps our office if you remember that all hail size reports allows forecasters to achieve a baseline correlation of storm strength vs. hail size. So thanks!

Slightly bigger events would soon follow however, on both October 24th and 26th. Northern Mississippi and portions of West Tennessee were in the path of these storms. On the evening of the 24th Law Enforcement in Panola County reported hail up to ping pong ball size at 7:10pm. Two and a half hours later half dollar size hail fell in Tupelo. Storms also produced significant wind damage that evening in Hardin county Tennessee and both Itawamba and Monroe counties in Mississippi. Numerous trees and a few power lines were downed; along with damage to a barn and outbuildings. The event on the 26th also had a couple wind damage reports with the worst occurring in Obion Tennessee, where the area received roof damages, power lines down and a twisted grain elevator. A damage storm survey team investigated the damage but found it not to be tornadic. Further south in Mississippi, reports of funnel clouds were sent in by fire/rescue in Tate County and by the public in rural northern Tishomingo County. Thankfully there were no confirmed tornado touchdowns that day. You may have noticed that the storms during this event were different. The NWS classifies them as mini-super-cells. The storms did not climb to great heights, most were below 30k ft and were generally less than 10 miles in diameter. I also noticed that the Tishomingo storm was the only storm that day that produced a few lightning strikes. Otherwise, most folks didn't even realize a storm was occurring. The weather stayed tranquil for the next four weeks, but that would soon change.

Two more mini-supercell storm days produced tornadoes across the Midsouth in late November. The first came on Thanksgiving day where straight line wind damage caused some trees and power lines, and damage to small out buildings in Caraway Arkansas. Late that afternoon a weak EF0 tornado dropped in on the festivities near a farm outside of Humboldt, Tennessee in Gibson County. Then a few days later a second event unfolded on the night of November 29th. A strong cold front moved into the lower Mississippi Valley that sparked tornadic activity from northern Louisiana to Alabama. Unfortunately, this storm path clipped Monroe County in Northeast Mississippi. Just before midnight a severe storm caused minor damage south of the town of Prairie. A few minutes later the same storm produced an EF2 tornado between Amory and Aberdeen. The path length was short thankfully, but a small subdivision near Becker took the brunt of the winds. Fortunately no one was killed with several folks receiving only minor injuries. These types of supercells only confirm that the Mid-south can really get some unique and tricky weather to forecast and to spot, especially late at night.

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STAFF CHANGES AT NWS MEMPHIS IN 2010

BY JIM BELLES, METEOROLOGIST IN CHARGE

Ryan Husted, new meteorologist

Texans love their state and Ryan Husted is no exemption. Born in Arlington, TX (part of the Dallas-Fort Worth Metroplex), Ryan developed an interest in weather at a young age. Fueled by a fascination of tornadoes, Ryan has chased storms and seen twisters across his beloved home state.

Ryan graduated from Texas A&M University in the spring of 2010. His main interests includes the great outdoors, where he loves to fish for bass and trout. One of his favorite places to fish is Colorado. Not surprisingly, like many Texans, Ryan is a fan of the Dallas Cowboys and Texas Rangers, but when it comes to hockey he's a big fan of the Philadelphia Flyers.

Charles "Danny" Gant, new meteorologist

Some people have the privilege of knowing exactly what they want to be when they grow up. Charles "Danny" Gant is one such fellow. Since he was a kid growing up in Kentucky, Danny knew he wanted to be a meteorologist. Danny was the kind of boy who would take his NOAA Weather Radio to bed with him on stormy nights.

Upon graduation Danny joined with the Army National Guard, where he served his county in Iraq. After coming home, Danny finished his meteorology degree at Western Kentucky University in the spring of 2010.

Like many folks from Kentucky, Danny is a big University of Kentucky basketball fan. He also loves working on cars. Danny has had some big changes in his life this year. In addition to moving to Memphis to start of new job, Danny married his wife Jodie this fall.

Michael Scotten, transferred to Amarillo

Since 2007, Michael Scotten has been an anchor for our office during a number of challenging weather events. With his intense love for weather, Mike always served our community with distinction. Mike was our program leader for fire weather services and he served those from the four states of Arkansas, Mississippi, Missouri and Tennessee with an eye toward improvement.

Mike transferred to Amarillo, TX to become one of their lead forecasters. At Amarillo, Mike will be joined by his wife Krissy, who became their Warning Coordination Meteorologist. Many of you may remember Krissy, who worked in our office for several years before transferring to the office in Huntsville for about a year. Our congratulations to Michael and our thanks for a job well done!

John Sirmon from Birmingham replaced Mike and will be featured in an upcoming issue.

Mike, pictured left, accepts a going away plaque from Jim Belles, MIC, right..

A LETTER TO STORM SPOTTERS

(CONTINUED FROM PAGE 3)

Since the 29th the weather has turned cooler with drier conditions and no severe storms. Hopefully this trend will continue through the remainder of 2010 despite the long term forecast of La Nina (opposite of El Nino). This oscillation in the past has caused more nighttime tornado outbreaks and thus deaths to Midsouth residents. The last La Nina year was in 2008. So everyone needs to be prepared now before the next tornado watch is issued.

Well everyone, 2011 will soon be here and with that a new spring season of severe weather. Nearly a dozen spotter talks have already been scheduled with the spring season beginning on Jan 25th. Several more dates are open and I'm standing by to book them. Please contact me at jim.branda@noaa.gov. This next season will go through the middle of April, so if you need a refresher, or haven't taken the advanced class, I'm sure you will find one close by. I've decided to add more interaction slides to the advanced class to build confidence in what you're seeing. To find the next class close to you, please visit our website at: http://www.srh.noaa.gov/meg/?n=skywarn meetings.

Last, I would like to give a big thanks to all the EM's, Fire Chiefs and the Crockett County Tennessee Amateur Radio Society for their eagerness in coordination and preparedness to make this year's fall spotter season a success. Especially the folks in Peach Orchard Arkansas, where as soon as I hooked up the projector it blew, forcing everyone in close to get the presentation from the laptop. Glad they were a friendly group, ha! Anyway, our office has acquired nearly 150 new spotters from your efforts! Take care everyone and have a safe and wonderful holiday season!

Storm Spotter Focal Point,

Jim Branda

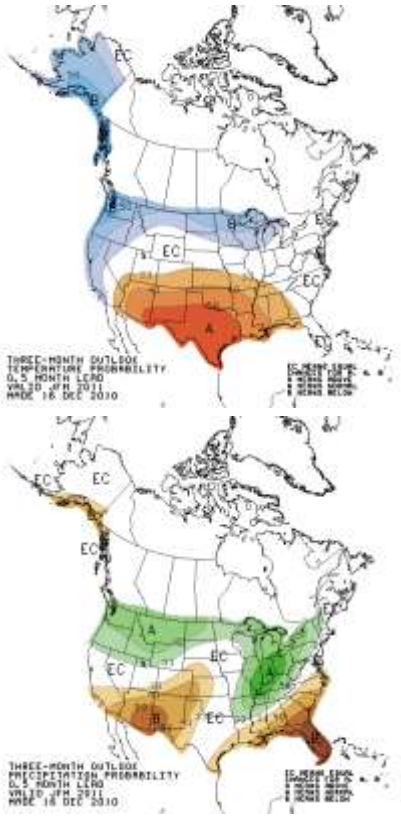
WINTER IS COMING...WHAT CAN WE EXPECT?

(CONTINUED FROM PAGE 1)

Examining the three month outlook for January, February, and March (JFM) pictured top right, the interpretation for most of Texas would be as follows: There is a 50% chance for the average JFM temperature to be above normal, a 33% chance for near normal temperatures, and a 17% chance for below normal temperatures. Keep in mind that the chances of near normal temperatures anywhere in the country are always 33%. The deviations are always either above or below. In the areas marked in white, there is an equal chance (EC) for average temperatures to be in all three categories; above, below, or near normal.

With regard to precipitation, the CPC is expecting a 50% chance for above normal precipitation over the JFM period across the Missouri bootheel and northwest Tennessee which would mean there is a 17% chance of there being below normal precipitation for the same period along with a 33% chance of near normal precipitation.

The CPC issues three month outlooks for three month blocks over a year in advance, but these outlooks are continuously updated with time. It is interesting to note that in 2011, the CPC will be implementing a new 30 year climatological average (1981-2010).



NOAA Weather Radio Transmitters :

Memphis, TN 162.475 Mhz

Jackson , TN 162.55 Mhz

Jonesboro, AR 162.55 Mhz

Booneville, MS 162.40 Mhz

Oxford, MS 162.55 Mhz

Dyersburg, TN 162.50 Mhz

Wardell, MO 162.525 Mhz

Vale, TN 162.45 Mhz

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National Weather Service

7777 Walnut Grove Road, OM-1

Memphis, TN 28120